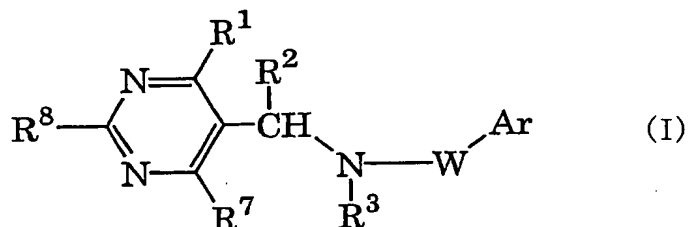


CLAIMS

1. A pyrimidine derivative represented by the formula
(I)

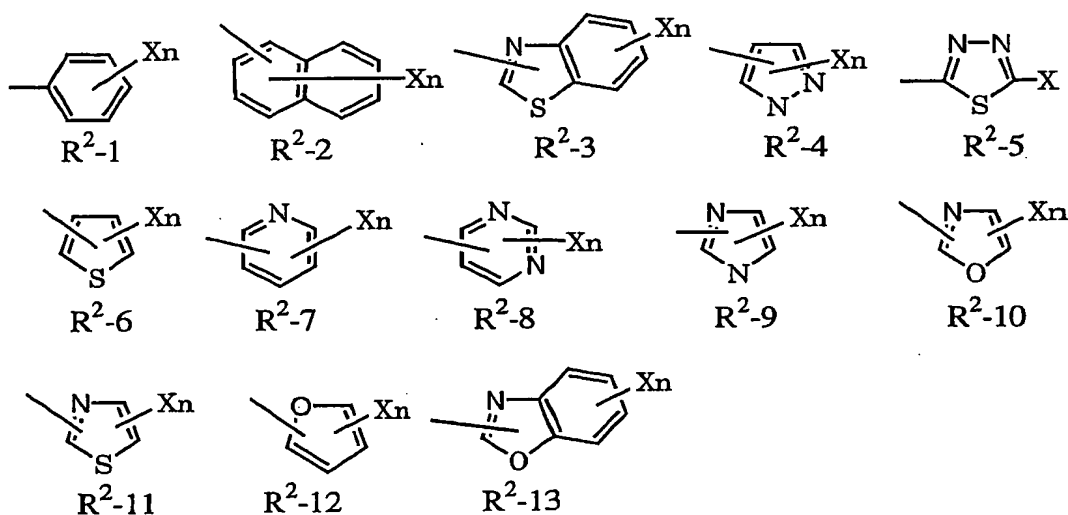


- 5 wherein R¹ is a hydrogen atom (except for a case where R²=hydrogen atom, and W=SO₂), a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkylcarbonyl C₁-C₆ alkyl group, a hydroxyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₃-C₆ cycloalkyl group (this group may be
- 10 substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group or a C₁-C₄ haloalkyl group), a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₂-C₆ alkynyloxy group, a C₃-C₆ cycloalkyloxy group, a phenyl group (this group
- 15 may be substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group, a C₁-C₄ haloalkyl group, a C₁-C₄ haloalkoxy group, a cyano group, a cyano C₁-C₆ alkyl group, a nitro group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group or a C₁-C₆ alkylsulfonyl group), a
- 20 C₁-C₆ alkylthio group (except for a case where R²=phenyl group, and W=SO₂), a C₂-C₆ alkenylthio group, a C₂-C₆ alkynylthio group, a C₃-C₆ cycloalkylthio group, a C₁-C₆ alkylsulfinyl group, a C₂-C₆ alkenylsulfinyl group, a

C₂-C₆ alkynylsulfinyl group, a C₃-C₆ cycloalkylsulfinyl group, a C₁-C₆ alkylsulfonyl group, a C₂-C₆ alkenylsulfonyl group, a C₂-C₆ alkynylsulfonyl group, a C₃-C₆ cycloalkylsulfonyl group, a C₁-C₆ hydroxyalkyl group, a C₂-C₇ acyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a cyano group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkoxycarbonyl C₁-C₆ alkyl group, a C₁-C₆ alkoxycarbonyl C₂-C₆ alkenyl group, a carboxyl group, a carboxyl C₁-C₆ alkyl group, a di C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkoxyimino C₁-C₆ alkyl group, a hydroxyimino C₁-C₆ alkyl group, a dioxolanyl group (this group may be substituted by a C₁-C₆ alkyl group), an aldehyde group, an oxiranyl group, a NR⁹R¹⁰ group or a CONR⁹R¹⁰ group, R⁹ is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group, a C₂-C₇ acyl group or a C₁-C₆ alkylsulfonyl group, R¹⁰ is a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group, a C₂-C₇ acyl group, a C₁-C₆ alkylsulfonyl group, a C₁-C₆ alkoxycarbonyl group or a benzyloxycarbonyl group, here R⁹ and R¹⁰ may, together with the carbon atom to which they are bonded, form a 5- to 7-membered saturated ring, R² is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkylthio group, a C₁-C₄ haloalkyl

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group, a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group (this group may be substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group or a C₁-C₄ haloalkyl group), a C₂-C₇ acyl group, a cyano group, a di C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkoxyimino C₁-C₆ alkyl group, a hydroxyimino C₁-C₆ alkyl group, a dioxolanyl group (this group may be substituted by a C₁-C₆ alkyl group), a cyano C₁-C₆ alkyl group, a C₁-C₆ hydroxyalkyl group, a C₁-C₆ alkoxy carbonyl group, a C₁-C₆ alkoxy carbonyl C₁-C₆ alkyl group, a CR¹¹R¹²NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a CR¹¹R¹²CONR⁹R¹⁰ group or a group represented by any one of the formulae R²-1 to R²-13:

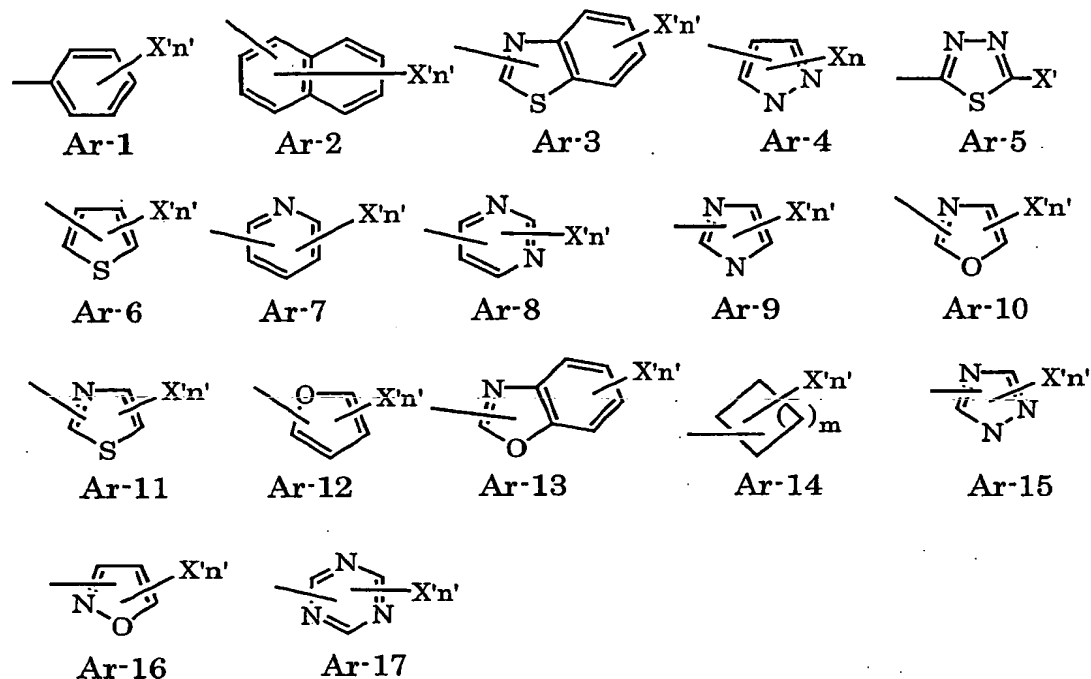


(wherein X is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a C₁-C₄ haloalkoxy group, a

C₂-C₆ alkenyloxy group, a C₃-C₆ cycloalkyloxy group, a
 C₂-C₇ acyl group, a C₁-C₆ alkoxy carbonyl group, a C₁-C₆
 alkylthio group, a C₁-C₆ alkylsulfinyl group, a C₁-C₆
 alkylsufonyl group, a cyano group, a nitro group or a
 5 C₁-C₄ haloalkyl group, n is an integer of from 1 to 3,
 when n is an integer of 2 or 3, the plurality of X may be
 the same or different, and two adjacent lower alkoxy
 groups may be bonded to each other to form a C₁-C₃
 alkylenedioxy group), each of R¹¹ and R¹² is a hydrogen
 10 atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆
 alkynyl group or a C₁-C₆ alkoxy group, (R³) is a hydrogen
 atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆
 alkynyl group, a C₁-C₆ alkoxy group, a di C₁-C₆ alkylamino
 group, a C₃-C₆ cycloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl
 15 group, a cyano C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl C₁-C₆
 alkyl group, an oxiranyl C₁-C₆ alkyl group or a C₁-C₆
 alkoxy carbonyl C₁-C₆ alkyl group, (W) is a -C(=Q)Z- group
 or a -SO₂- group, (Q) is an oxygen atom or a sulfur atom, (Z)
 is an oxygen atom, a sulfur atom, a -NR⁶- group, a
 20 -CH₂CH₂- group, a -CH=CH- group, a -C(R⁴)R⁵- group, a
 -C(R⁴)R⁵-Q- group, a -Q-C(R⁴)R⁵- group, a -C(=Q)- group, a
 -NR⁶NR^{6a}- group or a -NR⁶C(R⁴)R⁵- group, each of R⁴ and R⁵
 is a hydrogen atom, a C₁-C₆ alkyl group, a halogen atom,
 a C₁-C₆ alkoxy group or a C₁-C₆ alkylthio group, each of
 25 R⁶ and R^{6a} is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆
 alkenyl group or a C₂-C₆ alkynyl group, here R³ and R⁶ may,
 together with the carbon atom to which they are bonded,

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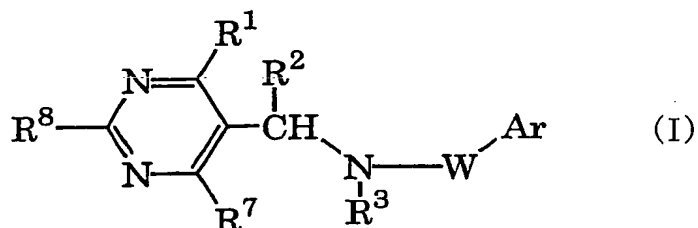
form a 5- to 7-membered cyclic urea, Ar is a group represented by any one of the formulae Ar-1 to Ar-17:



(wherein X' is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₃-C₆ cycloalkyloxy group, a C₂-C₇ acyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group, a C₁-C₆ alkylsufonyl group, a cyano group, a nitro group or a C₁-C₄ haloalkyl group, n' is an integer of from 1 to 3, m is an integer of from 0 to 3, when n' is an integer of 2 or 3, the plurality of X' may be the same or different, and two adjacent lower alkoxy groups may be bonded to each other to form a C₁-C₃ alkylenedioxy group), R⁷ is a

hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkylthio group, a C₁-C₄ haloalkyl group or a C₃-C₆ cycloalkyl group, and R⁸ is a hydrogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkylthio group, a C₁-C₄ haloalkyl group or a C₃-C₆ cycloalkyl group.

2. A pyrimidine derivative represented by the formula (I)

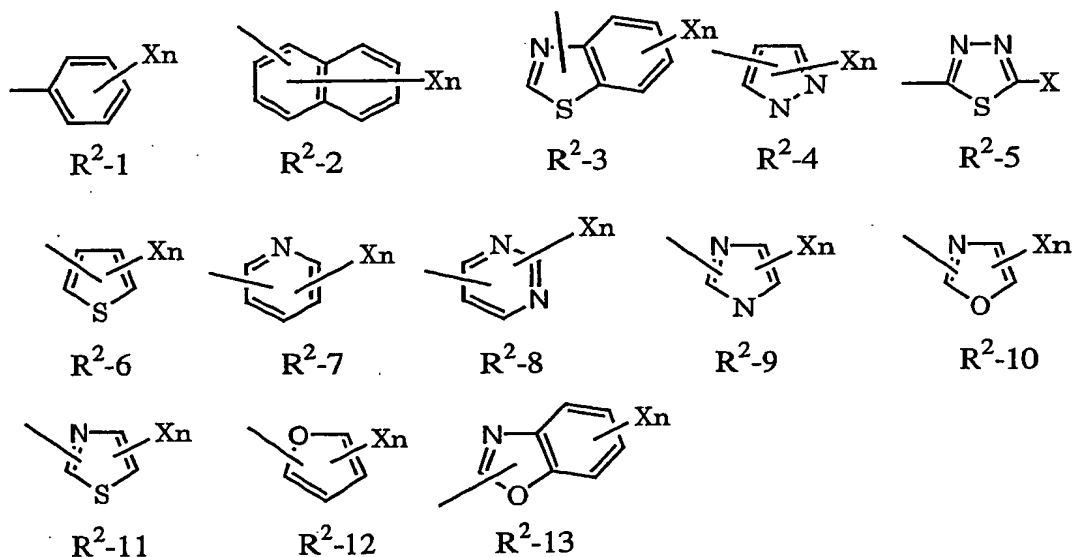


wherein R¹ is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkylcarbonyl C₁-C₆ alkyl group, a hydroxyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₃-C₆ cycloalkyl group (this group may be substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group or a C₁-C₄ haloalkyl group), a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₂-C₆ alkynyloxy group, a C₃-C₆ cycloalkyloxy group, a phenyl group (this group may be substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group, a C₁-C₄ haloalkyl group, a C₁-C₄ haloalkoxy group, a cyano group, a nitro group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group or a C₁-C₆ alkylsulfonyl group), a C₁-C₆ alkylthio group, a C₂-C₆ alkenylthio group, a C₂-C₆ alkynylthio group, a C₃-C₆

cycloalkylthio group, a C₁-C₆ alkylsulfinyl group, a C₂-C₆ alkenylsulfinyl group, a C₂-C₆ alkynylsulfinyl group, a C₃-C₆ cycloalkylsulfinyl group, a C₁-C₆ alkylsulfonyl group, a C₂-C₆ alkenylsulfonyl group, a C₂-C₆ alkynylsulfonyl group, a C₃-C₆ cycloalkylsulfonyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a cyano group, a cyano C₁-C₆ alkyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkoxycarbonyl C₁-C₆ alkyl group, a C₁-C₆ alkoxycarbonyl C₂-C₆ alkenyl group, a carboxyl group, a carboxyl C₁-C₆ alkyl group, a di C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkoxyimino C₁-C₆ alkyl group, a hydroxyimino C₁-C₆ alkyl group, a dioxolanyl group (this group may be substituted by a C₁-C₆ alkyl group), an aldehyde group, an oxiranyl group, a NR⁹R¹⁰ group or a CONR⁹R¹⁰ group, R⁹ is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group, a C₂-C₇ acyl group or a C₁-C₆ alkylsulfonyl group, R¹⁰ is a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group, a C₂-C₇ acyl group, a C₁-C₆ alkylsulfonyl group, a C₁-C₆ alkoxycarbonyl group or a benzyloxycarbonyl group, here R⁹ and R¹⁰ may, together with the carbon atom to which they are bonded, form a 5- to 7-membered saturated ring, R² is a hydrogen

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atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkylthio group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group (this group may be substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group or a C₁-C₄ haloalkyl group), a C₂-C₇ acyl group, a cyano group, a di C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkoxyimino C₁-C₆ alkyl group, a hydroxyimino C₁-C₆ alkyl group, a dioxolanyl group (this group may be substituted by a C₁-C₆ alkyl group), a cyano C₁-C₆ alkyl group, a C₁-C₆ hydroxyalkyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkoxycarbonyl C₁-C₆ alkyl group, a CR¹¹R¹²NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a CR¹¹R¹²CONR⁹R¹⁰ group or a group represented by any one of the formulae R²-1 to R²-13:

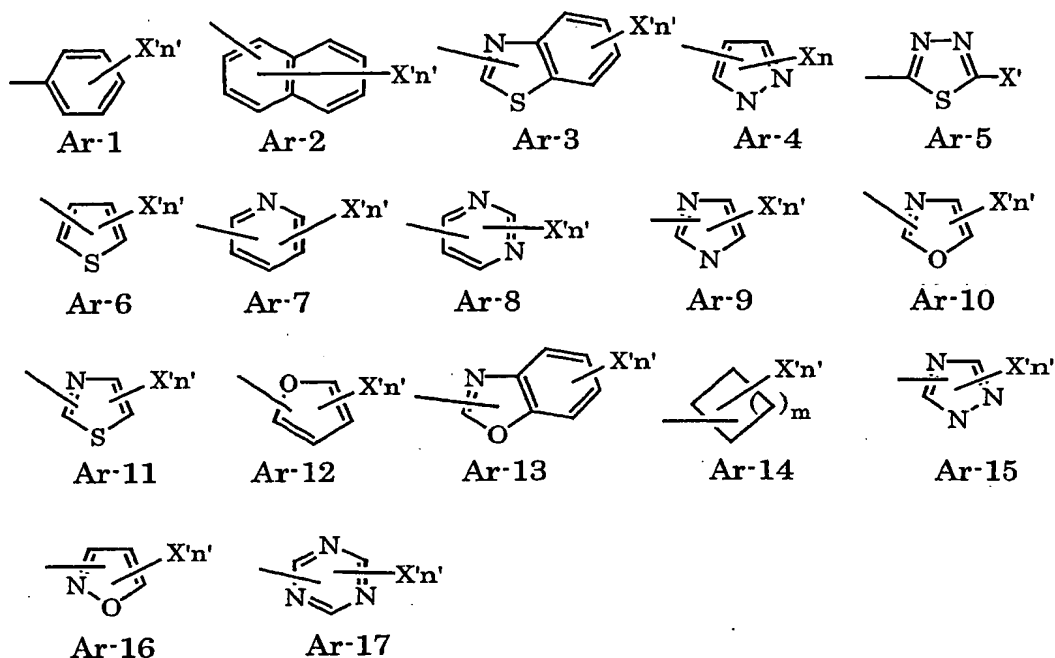


(wherein X is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group,

a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₃-C₆ cycloalkyloxy group, a C₂-C₇ acyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group, a C₁-C₆ alkylsufonyl group, a cyano group, a nitro group or a C₁-C₄ haloalkyl group, n is an integer of from 1 to 3, when n is an integer of 2 or 3, the plurality of X may be the same or different, and two adjacent lower alkoxy groups may be bonded to each other to form a C₁-C₃ alkylenedioxy group), each of R¹¹ and R¹² is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group or a C₁-C₆ alkoxy group, R³ is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a di C₁-C₆ alkylamino group, a C₃-C₆ cycloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a cyano C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl C₁-C₆ alkyl group, an oxiranyl C₁-C₆ alkyl group or a C₁-C₆ alkoxycarbonyl C₁-C₆ alkyl group, W is a -C(=Q)Z- group, Q is an oxygen atom or a sulfur atom, Z is an oxygen atom, a sulfur atom, a -NR⁶- group, a -CH₂CH₂- group, a -CH=CH- group, a -C(R⁴)R⁵- group, a -C(R⁴)R⁵-Q- group, a -Q-C(R⁴)R⁵- group, a -C(=Q)- group, a -NR⁶NR^{6a}- group or a -NR⁶C(R⁴)R⁵- group, each of R⁴ and R⁵ is a hydrogen atom, a C₁-C₆ alkyl group, a halogen atom, a C₁-C₆ alkoxy group or a C₁-C₆ alkylthio group, each of R⁶ and R^{6a} is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆

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alkenyl group or a C₂-C₆ alkynyl group, here R³ and R⁶ may, together with the carbon atom to which they are bonded, form a 5- to 7-membered cyclic urea, Ar is a group represented by any one of the formulae Ar-1 to Ar-17:



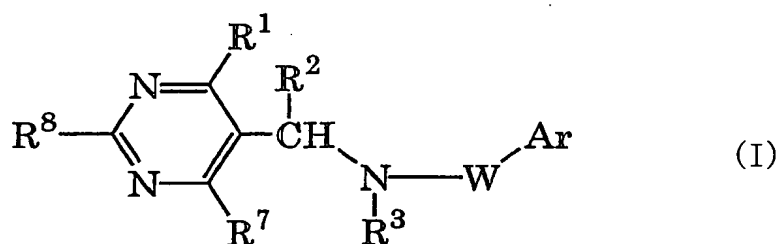
5

(wherein X' is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₃-C₆ cycloalkyloxy group, a C₂-C₇ acyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group, a C₁-C₆ alkylsulfonyl group, a cyano group, a nitro group or a C₁-C₄ haloalkyl group, n' is an integer of from 1 to 3, m is an integer of from 0 to 3, when n' is an integer of 2 or 3, the plurality of X' may be the same or different,

15

and two adjacent lower alkoxy groups may be bonded to each other to form a C₁-C₃ alkylenedioxy group), R⁷ is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkylthio group, a C₁-C₄ haloalkyl group or a C₃-C₆ cycloalkyl group, and R⁸ is a hydrogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkylthio group, a C₁-C₄ haloalkyl group or a C₃-C₆ cycloalkyl group.

3. A pyrimidine derivative represented by the formula (I)



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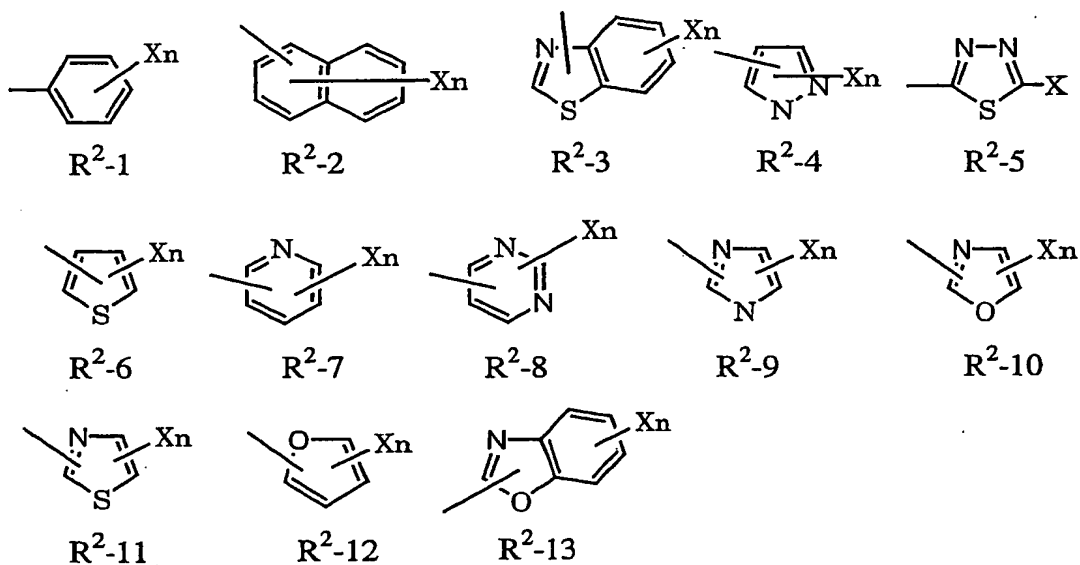
wherein R¹ is a halogen atom, a C₁-C₆ alkyl group, an oxo C₁-C₆ alkyl group, a hydroxyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₃-C₆ cycloalkyl group (this group may be substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group or a C₁-C₄ haloalkyl group), a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₂-C₆ alkynyloxy group, a C₃-C₆ cycloalkyloxy group, a phenyl group (this group may be substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group, a C₁-C₄ haloalkyl group, a C₁-C₄ haloalkoxy group, a cyano group, a nitro group, a C₁-C₆ alkylthio group, a C₁-C₆

20

alkylsulfinyl group or a C₁-C₆ alkylsulfonyl group), a C₂-C₆ alkenylthio group, a C₂-C₆ alkynylthio group, a C₃-C₆ cycloalkylthio group, a C₁-C₆ alkylsulfinyl group, a C₂-C₆ alkenylsulfinyl group, a C₂-C₆ alkynylsulfinyl group, a C₃-C₆ cycloalkylsulfinyl group, a C₁-C₆ alkylsulfonyl group, a C₂-C₆ alkenylsulfonyl group, a C₂-C₆ alkynylsulfonyl group, a C₃-C₆ cycloalkylsulfonyl group, a hydroxyalkyl group, a C₂-C₇ acyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a cyano group, a cyano C₁-C₆ alkyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkoxycarbonyl C₁-C₆ alkyl group, a C₁-C₆ alkoxycarbonyl C₂-C₆ alkenyl group, a carboxyl group, a carboxyl C₁-C₆ alkyl group, a di C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkoxyimino C₁-C₆ alkyl group, a hydroxyimino C₁-C₆ alkyl group, a dioxolanyl group (this group may be substituted by a C₁-C₆ alkyl group), an aldehyde group, an oxiranyl group, a NR⁹R¹⁰ group or a CONR⁹R¹⁰ group, R⁹ is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group, a C₂-C₇ acyl group or a C₁-C₆ alkylsulfonyl group, R¹⁰ is a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group, a C₂-C₇ acyl group, a C₁-C₆ alkylsulfonyl group, a C₁-C₆ alkoxycarbonyl group or a benzyloxycarbonyl group, here R⁹ and R¹⁰ may,

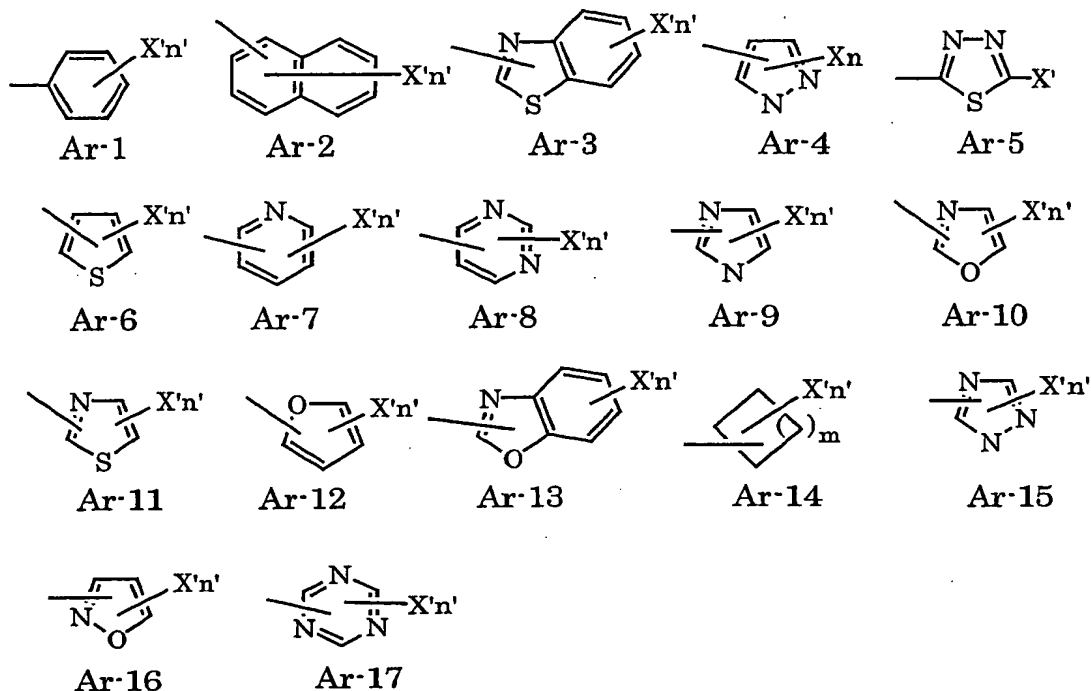
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together with the carbon atom to which they are bonded, form a 5- to 7-membered saturated ring, R^2 is a hydrogen atom, a C_1-C_6 alkyl group, a C_2-C_6 alkenyl group, a C_2-C_6 alkynyl group, a C_1-C_6 alkylthio group, a C_1-C_4 haloalkyl group, a C_1-C_6 alkoxy group, a C_1-C_6 alkoxy C_1-C_6 alkyl group, a C_1-C_6 alkylthio C_1-C_6 alkyl group, a C_3-C_6 cycloalkyl group (this group may be substituted by a halogen atom, a C_1-C_6 alkyl group, a C_1-C_6 alkoxy group or a C_1-C_4 haloalkyl group), a C_2-C_7 acyl group, a cyano group, a di C_1-C_6 alkoxy C_1-C_6 alkyl group, a C_1-C_6 alkoxyimino C_1-C_6 alkyl group, a hydroxyimino C_1-C_6 alkyl group, a dioxolanyl group (this group may be substituted by a C_1-C_6 alkyl group), a cyano C_1-C_6 alkyl group, a C_1-C_6 hydroxyalkyl group, a C_1-C_6 alkoxy carbonyl group, a C_1-C_6 alkoxy carbonyl C_1-C_6 alkyl group, a $CR^{11}R^{12}NR^9R^{10}$ group, a $CONR^9R^{10}$ group, a $CR^{11}R^{12}CONR^9R^{10}$ group or a group represented by any one of the formulae R^2-1 to R^2-13 :



(wherein X is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₃-C₆ cycloalkyloxy group, a C₂-C₇ acyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group, a C₁-C₆ alkylsufonyl group, a cyano group, a nitro group or a C₁-C₄ haloalkyl group, n is an integer of from 1 to 3, when n is an integer of 2 or 3, the plurality of X may be the same or different, and two adjacent lower alkoxy groups may be bonded to each other to form a C₁-C₃ alkylenedioxy group), each of R¹¹ and R¹² is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group or a C₁-C₆ alkoxy group, R³ is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a di C₁-C₆ alkylamino group, a C₃-C₆ cycloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a cyano C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl C₁-C₆ alkyl group, an oxiranyl C₁-C₆ alkyl group or a C₁-C₆ alkoxycarbonyl C₁-C₆ alkyl group, W is a -SO₂- group, Ar is a group represented by any one of the formulae Ar-1 to Ar-17:

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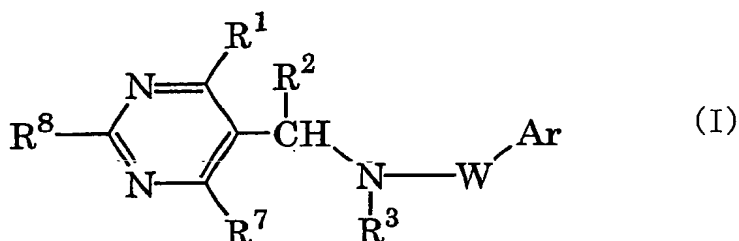


(wherein X' is a hydrogen atom, a halogen atom, an alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₃-C₆ cycloalkyloxy group, a C₂-C₇ acyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group, a C₁-C₆ alkylsufonyl group, a cyano group, a nitro group or a C₁-C₄ haloalkyl group, n' is an integer of from 1 to 3, m is an integer of from 0 to 3, when n' is an integer of 2 or 3, the plurality of X' may be the same or different, and two adjacent lower alkoxy groups may be bonded to each other to form a C₁-C₃ alkylenedioxy group), R⁷ is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkylthio group, a C₁-C₄

haloalkyl group or a C₃-C₆ cycloalkyl group, and R⁸ is a hydrogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkylthio group, a C₁-C₄ haloalkyl group or a C₃-C₆ cycloalkyl group.

4. A pyrimidine derivative represented by the formula

5 (I)

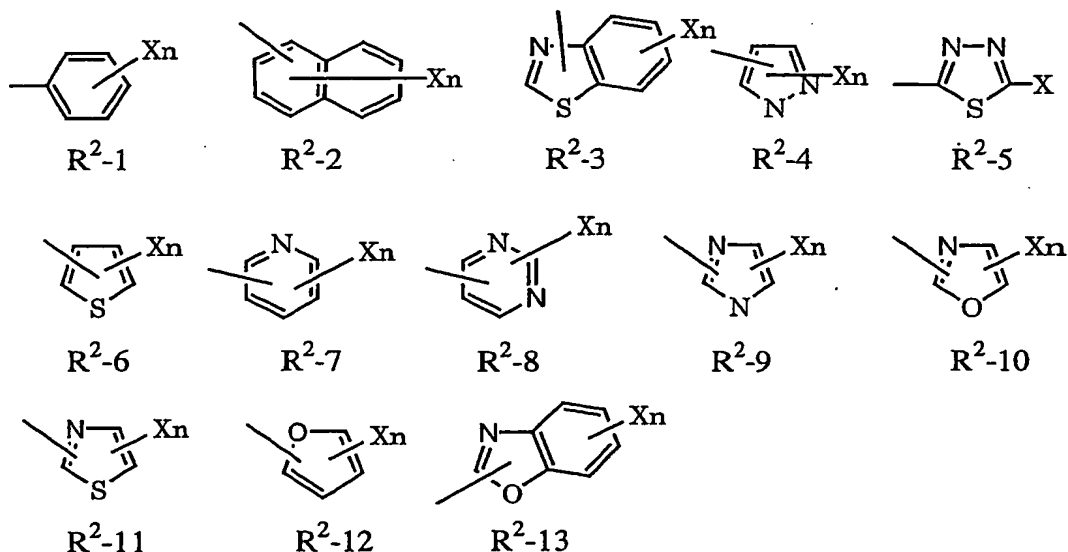


wherein R¹ is a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkylcarbonyl C₁-C₆ alkyl group, a hydroxyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₃-C₆ cycloalkyl group (this group may be substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group or a C₁-C₄ haloalkyl group), a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₂-C₆ alkynyloxy group, a C₃-C₆ cycloalkyloxy group, a phenyl group (this group may be substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group, a C₁-C₄ haloalkyl group, a C₁-C₄ haloalkoxy group, a cyano group, a nitro group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group or a C₁-C₆ alkylsulfonyl group), a C₁-C₆ alkylthio group (except for a case where R²=phenyl group, and W=SO₂), a C₂-C₆ alkenylthio group, a C₂-C₆ alkynylthio group, a C₃-C₆ cycloalkylthio group, a C₁-C₆

alkylsulfinyl group, a C₂-C₆ alkenylsulfinyl group, a C₂-C₆ alkynylsulfinyl group, a C₃-C₆ cycloalkylsulfinyl group, a C₁-C₆ alkylsulfonyl group, a C₂-C₆ alkenylsulfonyl group, a C₂-C₆ alkynylsulfonyl group, a C₃-C₆ cycloalkylsulfonyl group, a C₁-C₆ hydroxyalkyl group, a C₂-C₇ acyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a cyano group, a cyano C₁-C₆ alkyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkoxycarbonyl C₁-C₆ alkyl group, a C₁-C₆ alkoxycarbonyl C₂-C₆ alkenyl group, a carboxyl group, a carboxyl C₁-C₆ alkyl group, a di C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkoxyimino C₁-C₆ alkyl group, a hydroxyimino C₁-C₆ alkyl group, a dioxolanyl group (this group may be substituted by a C₁-C₆ alkyl group), an aldehyde group, an oxiranyl group, a NR⁹R¹⁰ group or a CONR⁹R¹⁰ group, R⁹ is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group, a C₂-C₇ acyl group or a C₁-C₆ alkylsulfonyl group, R¹⁰ is a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group, a C₂-C₇ acyl group, a C₁-C₆ alkylsulfonyl group, a C₁-C₆ alkoxycarbonyl group or a benzyloxycarbonyl group, here R⁹ and R¹⁰ may, together with the carbon atom to which they are bonded, form a 5- to 7-membered saturated ring, R² is a C₁-C₆ alkyl group, a

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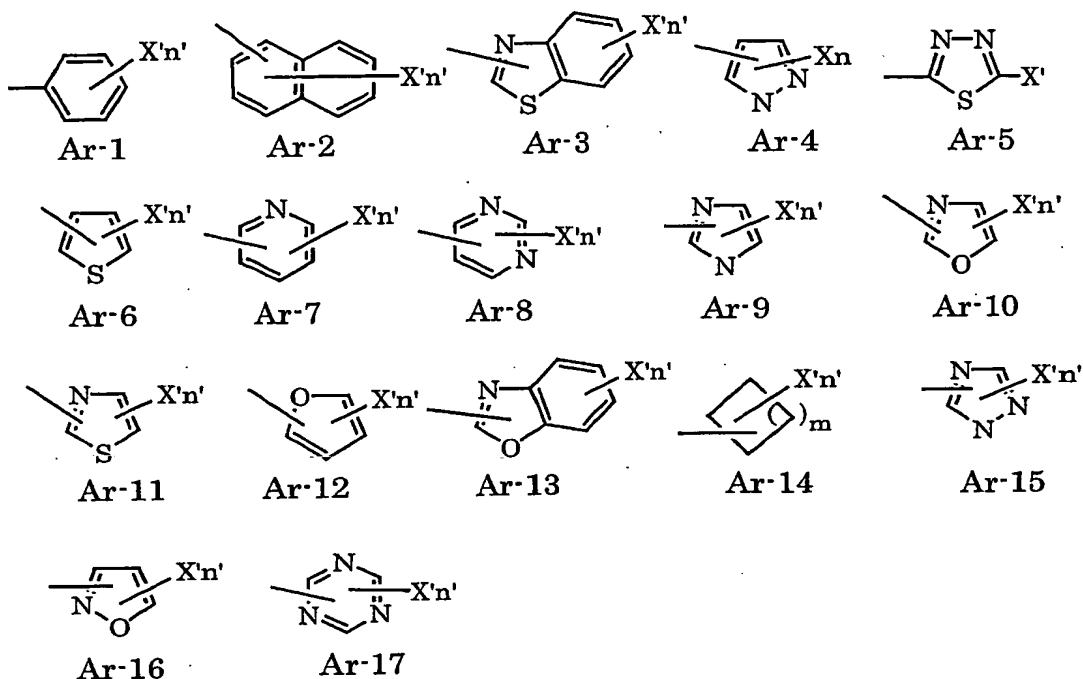
C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆
 alkylthio group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy
 group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio
 C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group (this group
 5 may be substituted by a halogen atom, a C₁-C₆ alkyl group,
 a C₁-C₆ alkoxy group or a C₁-C₄ haloalkyl group), a C₂-C₇
 acyl group, a cyano group, a di C₁-C₆ alkoxy C₁-C₆ alkyl
 group, a C₁-C₆ alkoxyimino C₁-C₆ alkyl group, a
 hydroxyimino C₁-C₆ alkyl group, a dioxolanyl group (this
 10 group may be substituted by a C₁-C₆ alkyl group), a cyano
 C₁-C₆ alkyl group, a C₁-C₆ hydroxyalkyl group, a C₁-C₆
 alkoxycarbonyl group, a C₁-C₆ alkoxycarbonyl C₁-C₆ alkyl
 group, a CR¹¹R¹²NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a
 CR¹¹R¹²CONR⁹R¹⁰ group or a group represented by any one of
 15 the formulae R²-1 to R²-13:



(wherein X is a hydrogen atom, a halogen atom, a C₁-C₆
 alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group,

a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₃-C₆ cycloalkyloxy group, a C₂-C₇ acyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group, a C₁-C₆ alkylsufonyl group, a cyano group, a nitro group or a C₁-C₄ haloalkyl group, n is an integer of from 1 to 3, when n is an integer of 2 or 3, the plurality of X may be the same or different, and two adjacent lower alkoxy groups may be bonded to each other to form a C₁-C₃ alkylenedioxy group), each of R¹¹ and R¹² is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group or a C₁-C₆ alkoxy group, R³ is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a di C₁-C₆ alkylamino group, a C₃-C₆ cycloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a cyano C₁-C₆ alkyl group or a C₃-C₆ cycloalkyl C₁-C₆ alkyl group, W is a -C(=Q)Z- group or a -SO₂- group, Q is an oxygen atom or a sulfur atom, Z is an oxygen atom, a sulfur atom, a -NR⁶- group, a -C(R⁴)R⁵- group, a -C(R⁴)R⁵-Q- group, a -NR⁶NR^{6a}- group or a -NR⁶C(R⁴)R⁵- group, each of R⁴ and R⁵ is a hydrogen atom, a C₁-C₆ alkyl group, a halogen atom or a C₁-C₆ alkoxy group, each of R⁶ and R^{6a} is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group or a C₂-C₆ alkynyl group, here R³ and R⁶ may, together with the carbon atom to which they are bonded, form a 5- to 7-membered cyclic urea, Ar is a group

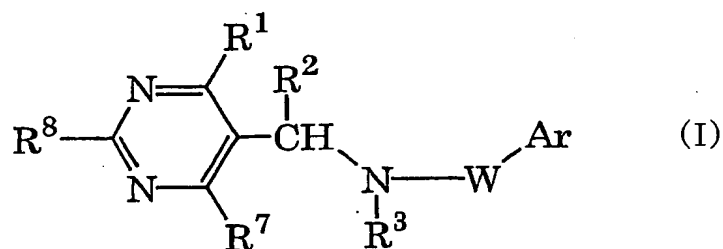
represented by any one of the formulae Ar-1 to Ar-17:



(wherein X' is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₃-C₆ cycloalkyloxy group, a C₂-C₇ acyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group, a C₁-C₆ alkylsufonyl group, a cyano group, a nitro group or a C₁-C₄ haloalkyl group, n' is an integer of from 1 to 3, m is an integer of from 0 to 3, when n' is an integer of 2 or 3, the plurality of X' may be the same or different, and two adjacent lower alkoxy groups may be bonded to each other to form a C₁-C₃ alkylenedioxy group), R⁷ is a hydrogen atom or a halogen atom, and R⁸ is a hydrogen

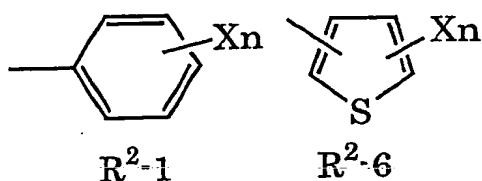
atom.

5. A pyrimidine derivative represented by the formula
(I)



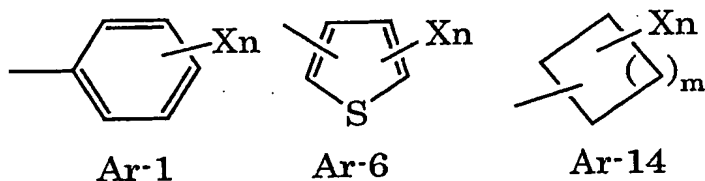
- 5 wherein R^1 is a C_1 - C_6 alkyl group, a C_1 - C_6 alkylcarbonyl
 C_1 - C_6 alkyl group, a C_3 - C_6 cycloalkyl group (this group
 may be substituted by a halogen atom, a C_1 - C_6 alkyl group,
 a C_1 - C_6 alkoxy group or a C_1 - C_4 haloalkyl group), a C_1 - C_4
 haloalkyl group, a C_1 - C_6 alkoxy group, a phenyl group
 10 (this group may be substituted by a halogen atom, a C_1 - C_6
 alkyl group, a C_1 - C_6 alkoxy group, a C_1 - C_4 haloalkyl group,
 a C_1 - C_4 haloalkoxy group, a cyano group, a nitro group, a
 C_1 - C_6 alkylthio group, a C_1 - C_6 alkylsulfinyl group or a
 C_1 - C_6 alkylsulfonyl group), a C_1 - C_6 alkylthio group
 15 (except for a case where R^2 =phenyl group, and $W=SO_2$), a
 C_1 - C_6 alkylsulfinyl group, a C_2 - C_7 acyl group, a C_1 - C_6
 alkoxy C_1 - C_6 alkyl group, a cyano group, a cyano C_1 - C_6
 alkyl group, a C_1 - C_6 alkoxycarbonyl group, a C_1 - C_6
 alkoxycarbonyl C_2 - C_6 alkenyl group, a carboxyl group, a
 20 di C_1 - C_6 alkoxy C_1 - C_6 alkyl group or a C_1 - C_6 alkoxyimino
 C_1 - C_6 alkyl group, R^2 is a C_1 - C_6 alkyl group, a C_1 - C_4
 haloalkyl group, a C_1 - C_6 alkoxy C_1 - C_6 alkyl group, a C_1 - C_6

alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group
 (this group may be substituted by a halogen atom, a C₁-C₆
 alkyl group, a C₁-C₆ alkoxy group or a C₁-C₄ haloalkyl
 group) a C₂-C₇ acyl group, or a group represented by
 5 either the formula R²-1 or R²-6:



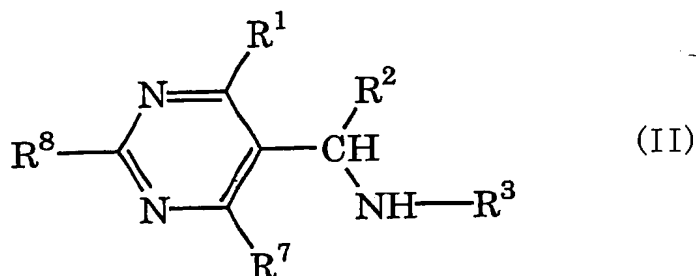
(wherein X is a hydrogen atom, a halogen atom, a C₁-C₆
 alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group,
 a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a
 10 NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a C₁-C₄ haloalkoxy group, a
 C₂-C₆ alkenyloxy group, a C₃-C₆ cycloalkyloxy group, a
 C₂-C₇ acyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆
 alkylthio group, a C₁-C₆ alkylsulfinyl group, a C₁-C₆
 alkylsulfonyl group, a cyano group, a nitro group or a
 15 C₁-C₄ haloalkyl group, n is an integer of from 1 to 3,
 when n is an integer of 2 or 3, the plurality of X may be
 the same or different, and two adjacent lower alkoxy
 groups may be bonded to each other to form a C₁-C₃
 alkylenedioxy group), R⁹ is a hydrogen atom, a C₁-C₆ alkyl
 20 group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a
 C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a
 C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group,
 a C₂-C₇ acyl group or a C₁-C₆ alkylsulfonyl group, R¹⁰ is a

C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₄ haloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a C₁-C₆ alkylthio C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl group, a C₂-C₇ acyl group, a C₁-C₆ alkylsulfonyl group, a C₁-C₆ alkoxycarbonyl group or a benzyloxycarbonyl group, here R⁹ and R¹⁰ may, together with the carbon atom to which they are bonded, form a 5- to 7-membered saturated ring, each of R¹¹ and R¹² is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group or a C₁-C₆ alkoxy group, R³ is a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a C₃-C₆ cycloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group or a cyano C₁-C₆ alkyl group, W is a -C(=Q)Z- group or a -SO₂- group, Q is an oxygen atom or a sulfur atom, Z is a -NR⁶- group, a -C(R⁴)R⁵- group, a -C(R⁴)R⁵-Q- group, a -NR⁶NR^{6a}- group or a -NR⁶C(R⁴)R⁵- group, each of R⁴ and R⁵ is a hydrogen atom, a C₁-C₆ alkyl group, a halogen atom or a C₁-C₆ alkoxy group, each of R⁶ and R^{6a} is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group or a C₂-C₆ alkynyl group, here R³ and R⁶ may, together with the carbon atom to which they are bonded, form a 5- to 7-membered cyclic urea, Ar is a group represented by either the formula Ar-1, Ar-6 or Ar-14:



(wherein X is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a NR⁹R¹⁰ group, a CONR⁹R¹⁰ group, a C₁-C₄ haloalkoxy group, a C₂-C₆ alkenyloxy group, a C₃-C₆ cycloalkyloxy group, a C₂-C₇ acyl group, a C₁-C₆ alkoxycarbonyl group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group, a C₁-C₆ alkylsufonyl group, a cyano group, a nitro group or a C₁-C₄ haloalkyl group, n is an integer of from 1 to 3, m is an integer of from 2 or 3, when n is an integer of 2 or 3, the plurality of X may be the same or different, and two adjacent lower alkoxy groups may be bonded to each other to form a C₁-C₃ alkylenedioxy group), R⁷ is a hydrogen atom, a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group, a C₁-C₆ alkylthio group, a C₁-C₄ haloalkyl group or a C₃-C₆ cycloalkyl group, and R⁸ is a hydrogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkylthio group, a C₁-C₄ haloalkyl group or a C₃-C₆ cycloalkyl group.

6. A pyrimidine derivative represented by an intermediate represented by the formula (II)



- wherein R^1 is a C_1 - C_6 alkyl group, a C_3 - C_6 cycloalkyl group (this group may be substituted by a halogen atom, a C_1 - C_6 alkyl group, a C_1 - C_6 alkoxy group or a C_1 - C_4 haloalkyl group), a phenyl group (this group may be substituted by a halogen atom, a C_1 - C_6 alkyl group, a C_1 - C_6 alkoxy group, a C_1 - C_4 haloalkyl group, a C_1 - C_4 haloalkoxy group, a cyano group, a nitro group, a C_1 - C_6 alkylthio group, a C_1 - C_6 alkylsulfinyl group or a C_1 - C_6 alkylsulfonyl group), a C_1 - C_6 alkoxy C_1 - C_6 alkyl group, a dioxolanyl group (this group may be substituted by a C_1 - C_6 alkyl group) or a di C_1 - C_6 alkoxy C_1 - C_6 alkyl group, R^2 is a C_1 - C_6 alkyl group, a C_1 - C_6 alkoxy C_1 - C_6 alkyl group, a C_1 - C_6 alkylthio C_1 - C_6 alkyl group, a C_3 - C_6 cycloalkyl group (this group may be substituted by a halogen atom, a C_1 - C_6 alkyl group, a C_1 - C_6 alkoxy group or a C_1 - C_4 haloalkyl group), a phenyl group (this group may be substituted by a halogen atom, a C_1 - C_6 alkyl group, a C_1 - C_6 alkoxy group, a C_1 - C_4 haloalkyl group, a C_1 - C_4 haloalkoxy group, a cyano group, a nitro group, a C_1 - C_6 alkylthio group, a C_1 - C_6 alkylsulfinyl group or a C_1 - C_6 alkylsulfonyl group), a thienyl group (this group may be

substituted by a halogen atom, a C₁-C₆ alkyl group, a C₁-C₆ alkoxy group, a C₁-C₄ haloalkyl group, a C₁-C₄ haloalkoxy group, a cyano group, a nitro group, a C₁-C₆ alkylthio group, a C₁-C₆ alkylsulfinyl group or a C₁-C₆ alkylsulfonyl group), a di C₁-C₆ alkoxy C₁-C₆ alkyl group or a dioxolanyl group (this group may be substituted by a C₁-C₆ alkyl group), R³ is a hydrogen atom, a C₁-C₆ alkyl group, a C₂-C₆ alkenyl group, a C₂-C₆ alkynyl group, a C₁-C₆ alkoxy group, a C₃-C₆ cycloalkyl group, a C₁-C₆ alkoxy C₁-C₆ alkyl group, a cyano C₁-C₆ alkyl group, a C₃-C₆ cycloalkyl C₁-C₆ alkyl group, an oxiranyl C₁-C₆ alkyl group or a C₁-C₆ alkoxycarbonyl C₁-C₆ alkyl group, R⁷ is a hydrogen atom or a C₁-C₆ alkoxy group, and R⁸ is a hydrogen atom, a C₁-C₆ alkyl group or a C₃-C₆ cycloalkyl group.

7. A herbicide containing the pyrimidine derivative as defined in any one of Claims 1 to 5, as an active ingredient.

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